

AMENDMENTS TO THE CLAIMS

Claims 1–39 (Cancelled)

Claim 40 (New) A method for representing digital content, comprising the steps:

providing a plurality of document agents each adapted to translate source data in at least one of a predetermined number of formats associated with a plurality of source applications into a predetermined internal representation format which is independent of the source data format so that the internal representation may be processed to display the digital content independently of the source applications;

receiving source data representative of the digital content in one of the predetermined formats generated by a first of the plurality of source applications;

identifying a particular document agent from among said plurality of document agents that is suitable for translating the source data into said internal representation format;

using the identified document agent to translate the source data into an internal representation of the digital content, the translation including:

identifying objects that occur within the source data,

for each object identified within the source data, creating a document object that represents an internal representation of the identified object and that separates the structure of the object from the data content of the object,

organizing the document objects into a document structure that represents the structure of the digital content,

organizing the data content of the objects into a data content structure, and

providing a set of pointers that associate the document objects within the document structure with the data content stored in the data content structure.

Claim 41 (New) A method according to claim 40, further including creating an indirection list that stores the set of pointers that associate the document objects with the data content.

Claim 42 (New) A method according to claim 40, wherein receiving source data comprises receiving a stream of data generated from an application program.

Claim 43 (New) A method according to claim 40, wherein receiving source data comprises receiving a stream of data generated from streaming data from an application program.

Claim 44 (New) A method according to claim 40, wherein receiving source data comprises receiving a stream of data from a peripheral device.

Claim 45 (New) A method according to claim 40, wherein receiving source data comprises receiving a stream of data from a plurality of sources of data.

Claim 46 (New) A method according to claim 45, further comprising merging document objects found in first source data and second source data for building a composite document structure.

Claim 47 (New) A method according to claim 40, wherein organizing the document objects into a document structure that represents the structure of the digital content includes filtering the document objects to select a sub set of document objects for the document structure.

Claim 48 (New) A method according to claim 40, wherein organizing the document objects into a document structure that represents the structure of the digital content includes organizing the document objects into an arrangement that differs from the structure of the source data.

Claim 49 (New) A method according to claim 40, wherein organizing the document objects into a document structure that represents the structure of the digital content includes adding document objects to alter the structure of the digital content.

Claim 50 (New) A method according to claim 40, wherein organizing the data content of the objects into a data content structure , includes filtering content to select content for the internal representation.

Claim 51 (New) A method according to claim 40, wherein organizing the data content of the objects into a data content structure includes adding content to the internal representation.

Claim 52 (New) A method according to claim 40, further including substituting data from a first source with data from a second source by processing the pointers to rearrange the association between the data content and the document objects.

Claim 53 (New) A method according to claim 40, further comprising compacting document objects by combining document objects having similar attributes.

Claim 54 (New) A method according to claim 40, further including building a resource table for storing resources identified within a source of data.

Claim 55 (New) A method according to claim 54, wherein the resources include resources selected from the group consisting of fonts, colour lists, styles and links.

Claim 56 (New) A method according to claim 40, further comprising one of storing and delivering data content independently from the document structure .

Claim 57 (New) A method according to claim 40, further comprising compressing the data content.

Claim 58 (New) A method according to claim 40 further comprising encoding the data content.

Claim 59 (New) A method according to claim 40, further comprising compressing the document structure.

Claim 60 (New) A method according to claim 40, further comprising encoding the document structure.

Claim 61 (New) A method according to claim 40, wherein a document object may include position information representative of a position of content within a document.

Claim 62 (New) A method according to claim 61 wherein the position information may be one of relative position information and fixed position information.

Claim 63 (New) A method according to claim 40, wherein the document structure defines position information representative of the location of an object relative to other objects in a document structure.

Claim 64 (New) A method according to claim 40, wherein the document structure includes document objects having a set of defined parameters including dimensional, temporal and physical parameters.

Claim 65 (New) A method according to claim 40, wherein a visual position for content in an internal representation is tracked separately from a structural position of that content in a document.

Claim 66 (New) A method according to claim 40, wherein the digital content includes content selected from the group consisting of text, graphic, audio, video, interactive, script and audio-visual.

Claim 67 (New) A method according to claim 40, further comprising exporting digital content.

Claim 68 (New) A method according to claim 67, wherein exporting digital content includes exporting digital content in a format representative of the internal representation.

Claim 69 (New) A method according to claim 67, wherein exporting digital content includes exporting content in a format compatible with a selected known file format.

Claim 70 (New) A method according to claim 68, wherein the format representative of the internal representation may be based on a structure selected from the group consisting of a binary data structure, a textual description, a marked-up text description, and a luminance/chrominance colour model.

Claim 71 (New) A method according to claim 68, wherein the format representative of the internal representation may be based on a universal text encoding model including an encoding selected from the group consisting of Unicode, shift-mapping and big-5.

Claim 72 (New) A method according to claim 40, wherein said document objects include associated styling information.

Claim 73 (New) A method according to claim 72, wherein said styling associated with a document text object includes font typeface, font size, whether the characters are bold, italic, or otherwise stylised.

Claim 74 (New) A method according to claim 72, wherein said styling information includes page style information.

Claim 75 (New) A computer readable medium having stored thereon instructions for a method comprising:

providing a plurality of document agents each adapted to translate source data in at least one of a predetermined number of formats associated with a plurality of source applications into a predetermined internal representation format which is independent of the source data format so that the internal representation may be processed to display the digital content independently of the source applications;

receiving source data representative of the digital content in one of the predetermined formats generated by a first of the plurality of source applications;

identifying a particular document agent from among said plurality of document agents that is suitable for translating the source data into said internal representation format;

using the identified document agent to translate the source data into an internal representation of the digital content, the translation including:

identifying objects that occur within the source data,

for each object identified within the source data, creating a document object that represents an internal representation of the identified object and that separates the structure of the object from the data content of the object,

organizing the document objects into a document structure that represents the structure of the digital content,

organizing the data content of the objects into a data content structure, and

providing a set of pointers that associate the document objects within the document structure with the data content stored in the data content structure.

Claim 76 (New) A system for representing digital content, comprising:

means for translating source data received in one of a plurality of predetermined formats associated with a plurality of application programs into a predetermined internal representation format independent of the source data format so that the internal representation may be processed to display the digital content independently of said application programs, including:

means for identifying objects that occur within the source data,

means for creating a document object that represents an internal representation of the identified object and that separates the structure of the object from the data content of the object for each object identified within the source data,

means for organizing the document objects into a document structure that represents the structure of the digital content,

means for organizing the data content of the objects into a data content structure, and

means for providing a set of pointers that associate the document objects within the document structure with the data content stored in the data content structure;

an input mechanism for receiving source data in one of the predetermined formats generated by a first of the plurality of application programs and representative of the digital content; and

means for identifying a particular document agent from among a plurality of document agents that is suitable for translating the source data into said internal representation format.

Claim 77 (New) A system according to claim 76, including a means for translation capable of understanding a plurality of file formats.

Claim 78 (New) A system according to claim 76, further comprising a set of object types representative of types of content that are present in said source data.

Claim 79 (New) A system according to claim 78, wherein the set of object types includes a bitmap object type, a vector graphic object type, video type, animation type, button type, script and a text object type.

Claim 80 (New) A system according to claim 76, wherein the means for translating identifies a file format from processing a characteristic selected from the group consisting of file content, file name, network type, transport mechanism, and disc type.